

G. Bugaiky

26/0

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/439,740

DATE: 05/05/2001
TIME: 00:04:53

INPUT SET: S36631.raw

This Raw Listing contains the General
Information Section and up to the first 5 pages.

1

SEQUENCE LISTING

2

3 (1) General Information:

4

5 (i) APPLICANT: FUNK, Walter D.
6 MacGILLIVRAY, Ross T.A.
7 MASON, Anne B.
8 WOODWORTH, Robert C.

9

10 (ii) TITLE OF INVENTION: RECOMBINANT TRANSFERRINS, TRANSFERRIN HALF-
11 MOLECULES AND MUTANTS THEREOF

12

13 (iii) NUMBER OF SEQUENCES: 7

14

15 (iv) CORRESPONDENCE ADDRESS:

16 (A) ADDRESSEE: LAHIVE & COCKFIELD
17 (B) STREET: 60 State Street, suite 510
18 (C) CITY: Boston
19 (D) STATE: Massachusetts
20 (E) COUNTRY: USA
21 (F) ZIP: 02109

22

23 (v) COMPUTER READABLE FORM:

24 (A) MEDIUM TYPE: Floppy disk
25 (B) COMPUTER: IBM PC compatible
26 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
27 (D) SOFTWARE: ASCII text

28

29 (vi) CURRENT APPLICATION DATA:

30 (A) APPLICATION NUMBER: 09/439,740
31 (B) FILING DATE:
32 (C) CLASSIFICATION:

33

34 (vii) PRIOR APPLICATION DATA:

35 (A) APPLICATION NUMBER: 08/175,158
36 (B) FILING DATE:
37 (C) CLASSIFICATION:

38

39 (viii) ATTORNEY/AGENT INFORMATION:

40 (A) NAME: DeConti, Giulio A.
41 (B) REGISTRATION NUMBER: 31,503
42 (C) REFERENCE/DOCKET NUMBER: UVI-005CP2

43

44 (ix) TELECOMMUNICATION INFORMATION:

45 (A) TELEPHONE: (617) 227-7400
46 (B) TELEFAX: (617) 227-5941

ENTERED

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/439,740**

DATE: 05/05/2001
TIME: 00:04:53

INPUT SET: S36631.raw

```

47
48
49 (2) INFORMATION FOR SEQ ID NO:1:
50
51     (i) SEQUENCE CHARACTERISTICS:
52     (A) LENGTH: 2327 base pairs
53     (B) TYPE: nucleic acid
54     (C) STRANDEDNESS: single
55     (D) TOPOLOGY: linear
56
57     (ii) MOLECULE TYPE: cDNA
58
59
60     (ix) FEATURE:
61     (A) NAME/KEY: CDS
62     (B) LOCATION: 31..2124
63
64     (ix) FEATURE:
65     (A) NAME/KEY: mat_peptide
66     (B) LOCATION: 88..2124
67
68
69     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
70
71 TGTGCTCGCT GCTCAGCGCG CACCCGGAAG ATG AGG CTC GCC GTG GGA GCC CTG      54
72 Met Arg Leu Ala Val Gly Ala Leu
73 -19          -15
74
75 CTG GTC TGC GCC GTC CTG GGG CTG TGT CTG GCT GTC CCT GAT AAA ACT      102
76 Leu Val Cys Ala Val Leu Gly Leu Cys Leu Ala Val Pro Asp Lys Thr
77 -10          -5           1           5
78
79 GTG AGA TGG TGT GCA GTG TCG GAG CAT GAG GCC ACT AAG TGC CAG AGT      150
80 Val Arg Trp Cys Ala Val Ser Glu His Glu Ala Thr Lys Cys Gln Ser
81 10          15          20
82
83 TTC CGC GAC CAT ATG AAA AGC GTC ATT CCA TCC GAT GGT CCC AGT GTT      198
84 Phe Arg Asp His Met Lys Ser Val Ile Pro Ser Asp Gly Pro Ser Val
85 25          30          35
86
87 GCT TGT GTG AAG AAA GCC TCC TAC CTT GAT TGC ATC AGG GCC ATT GCG      246
88 Ala Cys Val Lys Lys Ala Ser Tyr Leu Asp Cys Ile Arg Ala Ile Ala
89 40          45          50
90
91 GCA AAC GAA GCG GAT GCT GTG ACA CTG GAT GCA GGT TTG GTC TAT GAT      294
92 Ala Asn Glu Ala Asp Ala Val Thr Leu Asp Ala Gly Leu Val Tyr Asp
93 55          60          65
94
95 GCT TAC TTG GCT CCC AAT AAC CTG AAG CCT GTG GTG GCA GAG TTC TAT      342
96 Ala Tyr Leu Ala Pro Asn Asn Leu Lys Pro Val Val Ala Glu Phe Tyr
97 70          75          80          85
98
99 GGG TCA AAA GAG GAT CCA CAG ACT TTC TAT TAT GCT GTT GCT GTG GTG      390

```

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/439,740

DATE: 05/05/2001
 TIME: 00:04:54

INPUT SET: S36631.raw

100	Gly Ser Lys Glu Asp Pro Gln Thr Phe Tyr Tyr Ala Val Ala Val Val			
101	90	95	100	
102				
103	AAG AAG GAT AGT GGC TTC CAG ATG AAC CAG CTT CGA GGC AAG AAG TCC	438		
104	Lys Lys Asp Ser Gly Phe Gln Met Asn Gln Leu Arg Gly Lys Lys Ser			
105	105	110	115	
106				
107	TGC CAC ACG GGT CTA GGC AGG TCC GCT GGG TGG AAC ATC CCC ATA GGC	486		
108	Cys His Thr Gly Leu Gly Arg Ser Ala Gly Trp Asn Ile Pro Ile Gly			
109	120	125	130	
110				
111	TTA CTT TAC TGT GAC TTA CCT GAG CCA CGT AAA CCT CTT GAG AAA GCA	534		
112	Leu Leu Tyr Cys Asp Leu Pro Glu Pro Arg Lys Pro Leu Glu Lys Ala			
113	135	140	145	
114				
115	GTG GCC AAT TTC TTC TCG GGC AGC TGT GCC CCT TGT GCG GAT GGG ACC	582		
116	Val Ala Asn Phe Phe Ser Gly Ser Cys Ala Pro Cys Ala Asp Gly Thr			
117	150	155	160	165
118				
119	GAC TTC CCC CAG CTG TGT CAA CTG TGT CCA GGG TGT GGC TGC TCC ACC	630		
120	Asp Phe Pro Gln Leu Cys Gln Leu Cys Pro Gly Cys Gly Cys Ser Thr			
121	170	175	180	
122				
123	CTT AAC CAA TAC TTC GGC TAC TCG GGA GCC TTC AAG TGT CTG AAG GAT	678		
124	Leu Asn Gln Tyr Phe Gly Tyr Ser Gly Ala Phe Lys Cys Leu Lys Asp			
125	185	190	195	
126				
127	GGT GCT GGG GAT GTG GCC TTT GTC AAG CAC TCG ACT ATA TTT GAG AAC	726		
128	Gly Ala Gly Asp Val Ala Phe Val Lys His Ser Thr Ile Phe Glu Asn			
129	200	205	210	
130				
131	TTG GCA AAC AAG GCT GAC AGG GAC CAG TAT GAG CTG CTT TGC CTA GAC	774		
132	Leu Ala Asn Lys Ala Asp Arg Asp Gln Tyr Glu Leu Leu Cys Leu Asp			
133	215	220	225	
134				
135	AAC ACC CGG AAG CCG GTA GAT GAA TAC AAG GAC TGC CAC TTG GCC CAG	822		
136	Asn Thr Arg Lys Pro Val Asp Glu Tyr Lys Asp Cys His Leu Ala Gln			
137	230	235	240	245
138				
139	GTC CCT TCT CAT ACC GTC GTG GCC CGA AGT ATG GGC GGC AAG GAG GAC	870		
140	Val Pro Ser His Thr Val Val Ala Arg Ser Met Gly Gly Lys Glu Asp			
141	250	255	260	
142				
143	TTG ATC TGG GAG CTT CTC AAC CAG GCC CAG GAA CAT TTT GGC AAA GAC	918		
144	Leu Ile Trp Glu Leu Leu Asn Gln Ala Gln Glu His Phe Gly Lys Asp			
145	265	270	275	
146				
147	AAA TCA AAA GAA TTC CAA CTA TTC AGC TCT CCT CAT GGG AAG GAC CTG	966		
148	Lys Ser Lys Glu Phe Gln Leu Phe Ser Ser Pro His Gly Lys Asp Leu			
149	280	285	290	
150				
151	CTG TTT AAG GAC TCT GCC CAC GGG TTT TTA AAA GTC CCC CCA AGG ATG	1014		
152	Leu Phe Lys Asp Ser Ala His Gly Phe Leu Lys Val Pro Pro Arg Met			

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/439,740**

DATE: 05/05/2001
TIME: 00:04:54

INPUT SET: S36631.raw

153	295	300	305	
154				
155	GAT GCC AAG ATG TAC CTG GGC TAT GAG TAT GTC ACT GCC ATC CGG AAT			1062
156	Asp Ala Lys Met Tyr Leu Gly Tyr Glu Tyr Val Thr Ala Ile Arg Asn			
157	310	315	320	325
158				
159	CTA CGG GAA GGC ACA TGC CCA GAA GCC CCA ACA GAT GAA TGC AAG CCT			1110
160	Leu Arg Glu Gly Thr Cys Pro Glu Ala Pro Thr Asp Glu Cys Lys Pro			
161	330	335	340	
162				
163	GTG AAG TGG TGT GCG CTG AGC CAC CAC GAG AGG CTC AAG TGT GAT GAG			1158
164	Val Lys Trp Cys Ala Leu Ser His His Glu Arg Leu Lys Cys Asp Glu			
165	345	350	355	
166				
167	TGG AGT GTT AAC AGT GTA GGG AAA ATA GAG TGT GTA TCA GCA GAG ACC			1206
168	Trp Ser Val Asn Ser Val Gly Lys Ile Glu Cys Val Ser Ala Glu Thr			
169	360	365	370	
170				
171	ACC GAA GAC TGC ATC GCC AAG ATC ATG AAT GGA GAA GCT GAT GCC ATG			1254
172	Thr Glu Asp Cys Ile Ala Lys Ile Met Asn Gly Glu Ala Asp Ala Met			
173	375	380	385	
174				
175	AGC TTG GAT GGA GGG TTT GTC TAC ATA GCG GGC AAG TGT GGT CTG GTG			1302
176	Ser Leu Asp Gly Gly Phe Val Tyr Ile Ala Gly Lys Cys Gly Leu Val			
177	390	395	400	405
178				
179	CCT GTC TTG GCA GAA AAC TAC AAT AAG AGC GAT AAT TGT GAG GAT ACA			1350
180	Pro Val Leu Ala Glu Asn Tyr Asn Lys Ser Asp Asn Cys Glu Asp Thr			
181	410	415	420	
182				
183	CCA GAG GCA GGG TAT TTT GCT GTA GCA GTG GTG AAG AAA TCA GCT TCT			1398
184	Pro Glu Ala Gly Tyr Phe Ala Val Ala Val Val Lys Ser Ala Ser			
185	425	430	435	
186				
187	GAC CTC ACC TGG GAC AAT CTG AAA GGC AAG AAG TCC TGC CAT ACG GCA			1446
188	Asp Leu Thr Trp Asp Asn Leu Lys Gly Lys Lys Ser Cys His Thr Ala			
189	440	445	450	
190				
191	GTT GGC AGA ACC GCT GGC TGG AAC ATC CCC ATG GGC CTG CTC TAC AAT			1494
192	Val Gly Arg Thr Ala Gly Trp Asn Ile Pro Met Gly Leu Leu Tyr Asn			
193	455	460	465	
194				
195	AAG ATC AAC CAC TGC AGA TTT GAT GAA TTT TTC AGT GAA GGT TGT GCC			1542
196	Lys Ile Asn His Cys Arg Phe Asp Glu Phe Ser Glu Gly Cys Ala			
197	470	475	480	485
198				
199	CCT GGG TCT AAG AAA GAC TCC AGT CTC TGT AAG CTG TGT ATG GGC TCA			1590
200	Pro Gly Ser Lys Lys Asp Ser Ser Leu Cys Lys Leu Cys Met Gly Ser			
201	490	495	500	
202				
203	GGC CTA AAC CTG TGT GAA CCC AAC AAA GAG GGA TAC TAC GGC TAC			1638
204	Gly Leu Asn Leu Cys Glu Pro Asn Asn Lys Glu Gly Tyr Tyr Gly Tyr			
205	505	510	515	

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/439,740**

DATE: 05/05/2001
TIME: 00:04:55

INPUT SET: S36631.raw

206					
207	ACA GGC GCT TTC AGG TGT CTG GTT GAG AAG GGA GAT GTG GCC TTT GTG				1686
208	Thr Gly Ala Phe Arg Cys Leu Val Glu Lys Gly Asp Val Ala Phe Val				
209	520	525	530		
210					
211	AAA CAC CAG ACT GTC CCA CAG AAC ACT GGG GGA AAA AAC CCT GAT CCA				1734
212	Lys His Gln Thr Val Pro Gln Asn Thr Gly Gly Lys Asn Pro Asp Pro				
213	535	540	545		
214					
215	TGG GCT AAG AAT CTG AAT GAA AAA GAC TAT GAG TTG CTG TGC CTT GAT				1782
216	Trp Ala Lys Asn Leu Asn Glu Lys Asp Tyr Glu Leu Leu Cys Leu Asp				
217	550	555	560	565	
218					
219	GGT ACC AGG AAA CCT GTG GAG GAG TAT GCG AAC TGC CAC CTG GCC AGA				1830
220	Gly Thr Arg Lys Pro Val Glu Glu Tyr Ala Asn Cys His Leu Ala Arg				
221	570	575	580		
222					
223	GCC CCG AAT CAC GCT GTG GTC ACA CGG AAA GAT AAG GAA GCT TGC GTC				1878
224	Ala Pro Asn His Ala Val Val Thr Arg Lys Asp Lys Glu Ala Cys Val				
225	585	590	595		
226					
227	CAC AAG ATA TTA CGT CAA CAG CAG CAC CTA TTT GGA AGC AAC GTA ACT				1926
228	His Lys Ile Leu Arg Gln Gln His Leu Phe Gly Ser Asn Val Thr				
229	600	605	610		
230					
231	GAC TGC TCG GGC AAC TTT TGT TTG TTC CGG TCG GAA ACC AAG GAC CTT				1974
232	Asp Cys Ser Gly Asn Phe Cys Leu Phe Arg Ser Glu Thr Lys Asp Leu				
233	615	620	625		
234					
235	CTG TTC AGA GAT GAC ACA GTA TGT TTG GCC AAA CTT CAT GAC AGA AAC				2022
236	Leu Phe Arg Asp Asp Thr Val Cys Leu Ala Lys Leu His Asp Arg Asn				
237	630	635	640	645	
238					
239	ACA TAT GAA AAA TAC TTA GGA GAA GAA TAT GTC AAG GCT GTT GGT AAC				2070
240	Thr Tyr Glu Lys Tyr Leu Gly Glu Glu Tyr Val Lys Ala Val Gly Asn				
241	650	655	660		
242					
243	CTG AGA AAA TGC TCC ACC TCA TCA CTC CTG GAA GCC TGC ACT TTC CGT				2118
244	Leu Arg Lys Cys Ser Thr Ser Ser Leu Leu Glu Ala Cys Thr Phe Arg				
245	665	670	675		
246					
247	AGA CCT TAAAATCTCA GAGGTAGGGC TGCCACCAAG GTGAAGATGG GAACGCAGAT				2174
248	Arg Pro				
249					
250					
251	GATCCATGAG TTTGCCCTGG TTTCACTGGC CCAAGTGGTT TGTGCTAACCC ACGTCTGTCT				2234
252					
253	TCACAGCTCT GTGTTGCCAT GTGTGCTGAA CAAAAAAATAA AAATTATTAT TGATTTATA				2294
254					
255	TTTCAAAAAA AAAAAAAAAA AAAAAAAAAA AAA				2327
256					
257					
258	(2) INFORMATION FOR SEQ ID NO:2:				

PAGE: 1

**SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/09/439,740**

DATE: 05/05/2001

TIME: 00:04:55

INPUT SET: S36631.raw

Line

Error

Original Text

PAGE: 1

**SEQUENCE MISSING ITEM REPORT
PATENT APPLICATION US/09/439,740**

DATE: 05/05/2001
TIME: 00:04:55

INPUT SET: S36631.raw

<< THERE ARE NO ITEMS MISSING >>

PAGE: 1

**SEQUENCE CORRECTION REPORT
PATENT APPLICATION US/09/439,740**

DATE: 05/05/2001
TIME: 00:04:55

INPUT SET: S36631.raw

Line

Original Text

Corrected Text